

IN THE CLAIMS

Please amend the Claims as follows:

1. (Currently Amended) ~~An~~ A standalone intelligent device for coupling an electronic device to a network comprising:

a first interface for communicatively coupling said standalone intelligent device to said network, said network having a head end, wherein said head end is a central control site operable to remotely access said standalone intelligent device over said network;

a second interface comprising a plurality of communication ports for communicatively coupling said standalone intelligent device to a plurality of client devices at said plurality of communication ports such that said client devices are communicatively coupled to said network;

means for processing and interpreting data coupled to said first interface;
and

fault detection means coupled to said means for processing and interpreting data, said fault detection means for performing fault detection in said network.

2. (Currently Amended) ~~An~~ A standalone intelligent device as recited in Claim 1 wherein said head end is operable to remotely access said means for processing and interpreting data.

3. (Currently Amended) ~~An~~ A standalone intelligent device as recited in Claim 1 wherein said fault detection means is configured to isolate faults in both an uplink from said head end of said network and a downlink from said head end of said network.

4. (Currently Amended) ~~An~~ A standalone intelligent device as recited in Claim 1 wherein said fault detection means is selected from the group consisting essentially of: a link beat signal fault detection, a ping signal fault detection, and a loop-back mode for fault detection.

5. (Currently Amended) ~~An~~ A standalone intelligent device as recited in Claim 1 wherein said standalone intelligent device is configured such that said standalone intelligent device is provided power over said network.

6. (Currently Amended) ~~An~~ A standalone intelligent device as recited in Claim 5 wherein said head end is configured to activate and deactivate said standalone intelligent device over said network.

7. (Currently Amended) ~~An~~ A standalone intelligent device as recited in Claim 5 wherein said standalone intelligent device is configured to activate and deactivate said client devices.

8. (Currently Amended) ~~And~~ A standalone intelligent device as recited in Claim 1 wherein said standalone intelligent device employs time domain reflectometry measurement techniques such that said fault detection means is operable to determine a distance from said standalone intelligent device to said fault.

9. (Currently Amended) ~~And~~ A standalone intelligent device as recited in Claim 1 wherein said standalone intelligent device is configured to receive data packets from said head end.

10. (Currently Amended) ~~And~~ A standalone intelligent device as recited in Claim 9 wherein said data packets are for operating diagnostic tests at said standalone intelligent device for validating network connections.

11. (Currently Amended) ~~And~~ A standalone intelligent device for coupling an electronic device to a network comprising:

a first interface for communicatively coupling said standalone intelligent device to said network, said network having a head end, wherein said head end is a central control site operable to remotely access said standalone intelligent device over said network;

a second interface comprising a plurality of communication ports for communicatively coupling said standalone intelligent device to a plurality of client

devices at said plurality of communication ports such that said client devices are communicatively coupled to said network;

a robust processor coupled to said first interface; and

a fault detector coupled to said robust processor.

12. (Currently Amended) ~~An~~ A standalone intelligent device as recited in Claim 11 wherein said head end is operable to remotely access said robust processor.

13. (Currently Amended) ~~An~~ A standalone intelligent device as recited in Claim 11 wherein said fault detector is configured to isolate faults in both an uplink from said head end of said network and a downlink from said head end of said network.

14. (Currently Amended) ~~An~~ A standalone intelligent device as recited in Claim 11 wherein said fault detector is selected from the group consisting essentially of: a link beat signal fault detector, a ping signal fault detector, and a loop-back mode for fault detection.

15. (Currently Amended) ~~An~~ A standalone intelligent device as recited in Claim 11 wherein said intelligent device is configured such that said standalone intelligent device is provided power over said network.

16. (Currently Amended) ~~An~~ A standalone intelligent device as recited in Claim 15 wherein said head end is configured to activate and deactivate said standalone intelligent device over said network.

17. (Currently Amended) ~~An~~ A standalone intelligent device as recited in Claim 15 wherein said standalone intelligent device is configured to activate and deactivate said client devices.

18. (Currently Amended) ~~An~~ A standalone intelligent device as recited in Claim 11 wherein said standalone intelligent device employs time domain reflectometry measurement techniques such that said fault detection means is operable to determine a distance from said standalone intelligent device to said fault.

19. (Currently Amended) ~~An~~ A standalone intelligent device as recited in Claim 11 wherein said standalone intelligent device is configured to receive data packets from said head end.

20. (Currently Amended) ~~An~~ A standalone intelligent device as recited in Claim 19 wherein said data packets are for operating diagnostic tests at said standalone intelligent device for validating network connections.

21. (Currently Amended) A method for fault detection in a network, said method comprising the steps of:

a) providing ~~an~~ a standalone intelligent device coupled to a network, said standalone intelligent device comprising a first interface for communicatively coupling said standalone intelligent device to said network, a second interface comprising a plurality of communication ports for communicatively coupling said standalone intelligent device to a plurality of client devices at said plurality of communication ports, a robust processor coupled to said first interface, and a fault detector coupled to said robust processor, said network having a head end, wherein said head end is a central control site operable to remotely access said standalone intelligent device over said network;

b) monitoring said network for a fault by said standalone intelligent device and said head end, such that said standalone intelligent device and said head end operate in conjunction.

22. (Previously Presented) A method as recited in Claim 21 wherein said head end is operable to remotely access said robust processor.

23. (Original) A method as recited in Claim 21 wherein said fault detector is configured to isolate faults in both an uplink from said head end of said network and a downlink from said head end of said network.

24. (Original) A method as recited in Claim 21 wherein said fault detector is selected from the group consisting essentially of: a link beat signal fault detector, a ping signal fault detector, and a loop-back mode for fault detection.

25. (Currently Amended) A method as recited in Claim 21 wherein said standalone intelligent device is configured such that said intelligent device is provided power over said network.

26. (Original) A method as recited in Claim 25 wherein said head end is configured to activate and deactivate said intelligent device over said network.

27. (Currently Amended) A method as recited in Claim 25 wherein said standalone intelligent device is configured to activate and deactivate said client devices.

28. (Currently Amended) A method as recited in Claim 21 wherein said standalone intelligent device employs time domain reflectometry measurement techniques such that said fault detection means is operable to determine a distance from said standalone intelligent device to said fault.

29. (Currently Amended) A method as recited in Claim 21 wherein said standalone intelligent device is configured to receive data packets from said head end.

30. (Currently Amended) A method as recited in Claim 29 wherein said data packets are for operating diagnostic tests at said standalone intelligent device for validating network connections.